CONTROL SYSTEM REGULATING AIR FLOW TO ENGINE INTAKE

Abstract

A servomechanism for a valve controlling engine intake flow via a cooler and a bypass uses a proportional solenoid operating a hydraulic valve to power a hydraulic actuator setting the position of the control valve. An engine sensor and electric controller provide input to the proportional solenoid, and feedback from the position of the control valve is applied to the hydraulic valve by a cam and spring applying a force in opposition to the proportional solenoid.